

WHAT IS CLAIMED IS:

- Sub A1 1. A method of creating a relational database having a plurality of objects each having an associated data; said method comprising:
- 5 forming a first database table having a plurality of entries, each entry representing an object with an associated data; and
- forming a second database table having a plurality of entries, each entry defining a relationship between said plurality of objects.
- 10 2. The method of claim 1 wherein each of said plurality of relationships is defined between a pair of said objects.
3. The method of claim 2 wherein said relationship is between a parent and a child.
- 15 4. The method of claim 1 wherein said plurality of relationships include single parent and multiple parent hierarchies.
- Sub A2 5. The method of claim 1 wherein said plurality of relationships
- 20 include tree and graph type structures.
6. The method of claim 1 further comprising:
- forming a third database table, said third database table having a plurality of entries, each entry being a summary of said data from a plurality of
- 25 entries from said first database table.
7. The method of claim 5 wherein each entry in said second database table defines a relationship between a pair of said objects.
- 30 8. The method of claim 7 wherein said relationship is between a parent and a child.
9. The method of claim 8 wherein each entry in said second database table further defines a direct or indirect parent-child relationship.

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10. The method of claim 8 wherein each entry in said second database table further comprises a definition of a database structure to which said relationship is a part thereof.

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11. An article of manufacture comprising:

a computer usable medium having a computer readable program code embodied therein configured to cause a computer to form a first database table having a plurality of entries, each entry representing an object with an

10 associated data; and

computer readable program code embodied therein configured to cause a computer to form a second database table having a plurality of entries, each entry defining a relationship between said plurality of objects.

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12. The article of manufacture of claim 11 wherein each of said plurality of relationships is defined between a pair of said objects.

13. The article of manufacture of claim 12 wherein said relationship is between a parent and a child.

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14. The article of manufacture of claim 11 wherein said plurality of relationships include single parent and multiple parent hierarchies.

15. The article of manufacture of claim 11 wherein said plurality of relationships include tree and graph type structures.

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16. The article of manufacture of claim 11 further comprising:
computer readable program code embodied therein configured to cause a computer to form a third database table, said third database table having a plurality of entries, each entry being a summary of said data from a plurality of entries from said first database table.

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17. The article of manufacture of claim 15 wherein each entry in said second database table defines a relationship between a pair of said objects.

18. The article of manufacture of claim 17 wherein said relationship is between a parent and a child.

5 19. The article of manufacture of claim 18 wherein each entry in said second database table further defines a direct or indirect parent-child relationship.

10 20. The article of manufacture of claim 18 wherein each entry in said second database table further comprises a definition of a database structure to which said relationship is a part thereof.

Sub A3 21. A method of creating a relational data structure for storage and retrieval of multiple simultaneous hierarchical database relationships
15 comprising:

forming a table of members available in the multiple simultaneous hierarchical database relationships;

forming a table of reporting relationships among the members available in the multiple simultaneous hierarchical database relationships; and

20 forming a table having a set of hierarchies, each hierarchy corresponding to a reporting relationship in said table of reporting relationships.

22. A relational database structure comprising:
a first database table having a plurality of entries, each entry
25 representing one of a plurality of objects with an associated data; and
a second database table having a plurality of entries, each entry defining a relationship between said plurality of objects.

add 4
add 1